

## PATENT COOPERATION TREATY

(37) AB

From the INTERNATIONAL SEARCHING AUTHORITY

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PCT

INVITATION TO PAY ADDITIONAL FEES  
AND, WHERE APPLICABLE, PROTEST FEE

(PCT Article 17(3)(a) and Rule 40.1 and 40.2(e))

Date of Mailing 10 JUL 2008  
(day/month/year)

Applicant's or agent's file reference

33198

PAYMENT DUE

within ONE MONTH from  
the above date of mailing

International application No.

PCT/IL06/01511

International filing date

(day/month/year) 28 December 2006 (28.12.2006)

Applicant

SPECTRUM DYNAMICS LLC

## 1. This International Searching Authority

- (i) considers that there are 2 (number of) inventions claimed in the international application covered by the claims indicated below/on an extra sheet:  
Please See Continuation Sheet

- (ii) therefore considers that the international application does not comply with the requirement of unity of invention (Rules 13.1, 13.2 and 13.3) for the reasons indicated below/on an extra sheet:  
Please See Continuation Sheet

- (iii) ☐ has carried out a partial international search (see Annex) ☒ will establish the international search report on those parts of the international application which relate to the invention first mentioned in claims Nos.:

- (iv) will establish the international search report on the other parts of the international application only if, and to the extent to which, additional fees are paid.

## 2. Consequently, the applicant is hereby invited to pay, within the time limit indicated above, to pay the amount indicated below:

\$1,000.00 X 8 = \$8,000.00  
Fee per additional invention number of additional inventions total amount of additional fees/currency

3. The applicant is informed that, according to Rule 40.2(c), the payment of any additional fees may be made under protest, that is, a reasoned statement to the effect that the international application complies with the requirement of unity of invention or that the amount of the required additional fees is excessive, where applicable, subject to the payment of a protest fee.

Where the applicant pays additional fees under protest, the applicant is hereby invited, within the time limit indicated above, to pay a protest fee (Rule 40.2(e)) in the amount of \_\_\_\_\_ (amount/currency)

Where the applicant has not, within the time limit indicated above, paid the required protest fee, the protest will be considered not to have been made and the International Searching Authority will so declare.

4. ☐ Claim(s) Nos. \_\_\_\_\_ have been found to be unsearchable under Article 17(2)(b) because of defects under Article 17(2)(a) and therefore have not been included with any invention.

Name and mailing address of the ISA/US

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**INVITATION TO PAY ADDITIONAL FEES  
AND, WHERE APPLICABLE, PROTEST FEE**

International application No.  
PCT/IL06/01511

This International Search Authority has found 9 inventions claimed in the International Application covered by the claims indicated below:

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In order for more than one species to be examined, the appropriate additional examination fees must be paid. The species are as follows:

- I. Claims 1-5, 14-15, 25-43, 52-53, and 63-75, drawn to a method for a radioactive emission image, wherein obtaining radioactive emissions including obtaining timing data.
- II. Claims 1, 6-10, and 44-48, drawn to a method for a radioactive emission image, wherein obtaining radioactive emissions including obtaining without timing data.
- III. Claims 1, 11, 24, 49, and 62, drawn to independently carrying separate reconstruction of first and second volumetric regions, to different levels of accuracy, so as to concentrate reconstruction resources on the volumetric region of greater dynamic activity.
- IV. Claims 1, 12, and 50, draw to separately reconstructing using object implantation for refining the reconstruction of first and second volumetric regions.
- V. Claims 1, 13, and 51, draw to displaying radioactive emission image and allowing a system user to mark at least one of first and second volumetric regions and performing segmenting according to the mark.
- VI. Claims 1, 16-19, and 54-57, draw to segmenting is performed according to a voxel value threshold.
- VII. Claims 1, 20, and 58, draw to segmenting initial radioactive emission image to delineate first and second volumetric regions based on their independent dynamic characteristics.
- VIII. Claims 1, 21-22, and 59-60, draw to segmenting is performed according to estimation of the radiation intensity of the visceral background of radioactive emission image.
- VIV. Claims 1, 23, and 61, draw to segmenting is performed according to a morphological segmentation method.

1. This International Searching Authority considers that the international application does not comply with the requirements of unity of invention (Rules 13.1, 13.2 and 13.3) for the reasons indicated below:

The inventions are distinct with different technical features, each from the other because of the following reasons:

The inventions are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as a method for a radioactive emission image, wherein obtaining radioactive emissions including obtaining timing data. Invention II has separate utility such as to a method for a radioactive emission image, wherein obtaining radioactive emissions including obtaining without timing data. Invention III has separate utility such as to independently carrying separate reconstruction of first and second volumetric regions, to different levels of accuracy, so as to concentrate reconstruction resources on the volumetric region of greater dynamic activity. Invention IV has separate utility such as to separately reconstructing using object implantation for refining the reconstruction of first and second volumetric regions. Invention V has separate utility such as to displaying radioactive emission image and allowing a system user to mark at least one of first and second volumetric regions and performing segmenting according to the mark. Invention VI has separate utility such as to segmenting is performed according to a voxel value threshold. Invention VII has separate utility such as to segmenting initial radioactive emission image to delineate first and second volumetric regions based on their independent dynamic characteristics. Invention VIII has separate utility such as to segmenting is performed according to estimation of the radiation intensity of the visceral background of radioactive emission image. Invention VIV has separate utility such as to Invention II has separate utility such as to Invention II has separate utility such as to segmenting is performed according to a morphological segmentation method.

Because these inventions are distinct with different technical features for the reasons given above and have acquired a separate status in the art as shown, lack of unity of the invention for examination purposes as indicated is proper.